of the total cost and Cetuximab with 0.74% of units and 3.26% of the total cost.
Conclusion: The regulation in the use of costly drugs including expensive cancer treatment is an important issue in health insurance programs.
Nowadays with many expensive emerging technologies, particularly therapies for cancer, there is a need for pharmacoeconomic studies.
We need to generate a model of coverage analysis enhancing participation of all parts in order to warrant adequate access to these expensive treatments.

3607 POSTER

Review of Meta-analyses Evaluating Surrogate Endpoints for Overall Survival (OS) in Oncology

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Background: OS is the gold standard in measuring treatment effect of new drug therapies for cancer. However, practical factors may preclude the collection of unconfounded OS data and, therefore, surrogate endpoints are often used instead. Meta-analyses have been widely used for validation of surrogate endpoints, specifically in oncology. This research reviewed published meta-analyses on the types of surrogate measures used in oncology and examined the extent of correlation between surrogate endpoints and OS for different cancer types.
Methods: A search was conducted in Oct 2010 to compile available published evidence in the English language for validation of disease progression-related endpoints as surrogates of OS based on meta-analyses. Extensive efforts were made to follow citations, and data was extracted by tumour type in metastatic disease.
Results: Published meta-analyses (N = 26) were identified covering 6 advanced solid tumour types. Results that quantified the correlation between progression-free survival (PFS) and OS are shown in Table 1. In non-small cell lung cancer, 3 meta-analyses reported on response rate or time to progression but not PFS. One publication in head & neck cancer reported strong correlation between event-free survival and OS in multiple settings. One abstract in renal cell cancer presented a meta-analysis showing correlation (0.69) between effects on PFS and OS based on 21 trials.

Table 1. Supporting evidence for use of PFS as surrogate for OS

Tumour type	No. of meta-analyses	R^2 ind	R^2 trial	Surrogate threshold effect (STE) or prediction
Colorectal	4	0.23–0.67	0.52–0.98	STE (for PFS) = 0.86 HR PFS <0.77 predicts OS benefit
Ovarian	3	0.44–0.70	0.36–0.95	STE = 0.55
Breast	4	0.14–0.47	0.30–0.78	HR PFS= 0.7 predicts HR OS = 0.88
Prostate	2	0.09	0.22	Not reported

R^2_{ind} measures relationship between endpoints by treatment arm; R^2_{treat} measures relationship between treatment effects on endpoints by study; STE = minimum effect on the surrogate endpoint necessary to predict a nonzero effect on the target endpoint.

Conclusions: PFS is the most commonly used surrogate measure in studies of advanced solid tumours, and correlation with OS is reported for a limited number of cancer types. Given the increased use of crossover in trials and availability of second/third-line treatment options available to patients after progression, it will become increasingly more difficult to establish correlation between effects on PFS and OS in additional tumour types.

3608 POSTER

Castrate-Resistant Prostate Cancer − Clinical as Well as Economic Factors Should Influence Treatment Practice

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Background: New payment strategies developed by payers as an alternative to fee-for-service have been designed to improve care coordination. These innovations occurred during the same time frame that several new treatment options were approved for castrate-resistant prostate cancer (CRPC) and are now included in treatment regimens for this stage of disease. This study reviewed new payment strategies and identified the most common pathways in practice to assess and evaluate resources used. Whether new payment strategies could affect treatment pathways in CRPC was also considered.
Methods: Through published literature, public records, and phone interviews with payer organizations with pilot payment programs in place, 11 innovative payment and delivery models from 1996–2010 were analyzed. In addition, by reviewing the CRPC literature and NCCN guidelines, and through a standardized questionnaire to oncology practices, common treatment pathways were identified. Financial resources associated with pathways were evaluated using Medicare reimbursement rates.
Results: Most pilot strategies bundled episodes of care and payment but only 5 models focused on oncology, none on prostate cancer (PCa); 1 pilot for early-stage PCa will begin this year. Ten alternative treatment pathways for CRPC were determined, including sequences of watchful waiting, hormonal therapy (luteinizing hormone-releasing hormone), antiandrogen withdrawal, ketoconazole, chemotherapy (docetaxel, cabazitaxel), and immunotherapy (sipuleucel-T). Costs of pathways varied widely depending on specific therapies utilized. Regimens that included mainly secondary hormonal therapy were least expensive, ⩽$25,000/patient, while those including newer treatment options were more costly, ranging up to ~$140,000.
Conclusions: The unique nature of oncology practice may prove challenging to a system of payment strategies based on episodes of care because most cancer is treated by an interdisciplinary team in a variety of settings. In this analysis of CRPC payment models, cost varied substantially based on the treatment chosen, with the newest options being more expensive. If bundled episodes of care are to be used successfully in the CRPC population, clinical guidelines, patient health status, response to therapy, and potential for survival benefit primarily should be used to determine choice of therapeutic regimen so that access to the newest treatments with proven clinical outcomes is not limited.

3609 POSTER

The Multidisciplinary Approach in Advanced Prostate Cancer: a Critical Need Today

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Background: Many new therapies, including cabazitaxel, sipuleucel-T, denosumab, zoledronic acid, and abiraterone, have been developed recently for advanced prostate cancer (PCa). Treatment with these agents may involve several clinical disciplines and so, it has been proposed within the current literature that the multidisciplinary approach (MDA) be adopted for optimal patient management in PCa. This approach is well known in certain oncology specialties, such as breast cancer, and has led to better outcomes. We investigated the quality and magnitude of the efficacy of the MDA in PCa treatment and whether advanced PCa is part of current MDA initiatives.
Materials and Methods: To examine evidence supporting the efficacy of the MDA in treatment of advanced PCa, the evidence-based PCa literature was searched for the past 5 years using the search terms MDA, care coordination, medical home, and patient management for PCa. Also, source references of appropriate articles found were evaluated. Additionally, through field-based searches using standardized search parameters, a sample of US PCa healthcare professionals with clinical practices purporting to implement the MDA were identified and interviewed.
Results: Of 270 search-identified articles and 559 from source references, 32 articles addressed the MDA in PCa. In general, identified publications lacked a uniform definition of MDA and methodologic variability was substantial. Most of the literature was descriptive and none of the articles presented clinical outcomes; few specifically discussed advanced PCa. Only 7 of the 14 MDA providers interviewed were part of a medical service offering true MDA; the other 7 retrospectively reviewed select cases via a tumour board. Notably, MDAs that the clinicians participated in focused on early localized disease and not on castrate-resistant disease, as this was viewed as noncontroversial with well-defined treatment regimens. There was no consensus as to the opportune time to refer advanced patients to medical oncology.
Conclusions: While the concept of the MDA in PCa is widely supported, MDA is poorly defined in the literature and rigorous studies of outcomes are nonexistent. Few centers have implemented an MDA, especially in the latter stages of disease. The wealth of new agents has made the need for the MDA critical in advanced PCa, as only a coordinated approach will enable best use of these agents and potential sequences to improve quality care.